

Examiner's convenience, all claims currently pending in the application are presented below:

16. (Amended) A projection exposure apparatus, comprising:

an illumination optical system for illuminating a reticle with light from a light source, wherein said illumination optical system includes an optical integrator for producing a secondary light source with the light from the light source, and masking means for restricting an illumination range upon the reticle, which is to be illuminated with illumination light from the secondary light source;

a projection optical system for projecting a pattern of the reticle, as illuminated, onto a substrate;

measuring means for measuring telecentricity of said projection optical system with respect to different image heights; and

changing means for changing an incidence angle of the illumination light corresponding to each of the different image heights, to adjust the telecentricity with respect to the image height, wherein said adjusting means moves an optical element disposed in a portion of said illumination optical system between said optical integrator and said masking means, along an optical axis direction.

17. An apparatus according to Claim 16, wherein said optical element is a lens.

18. (Amended) A projection exposure apparatus, comprising:

an illumination optical system for illuminating a reticle with illumination light;

a projection optical system for projecting a pattern of the reticle, as illuminated, onto a substrate;

measuring means for measuring telecentricity of said projection optical system with respect to different image heights, said measuring means also measuring telecentricity with respect to an optical axis;

first changing means for changing an incidence angle of the illumination light corresponding to each of the different image heights, to adjust the telecentricity with respect to the image height; and

second changing means for changing an incidence angle of the illumination light to adjust the telecentricity with respect to the optical axis.

19. An apparatus according to Claim 18, wherein said illumination optical system includes an optical integrator for producing secondary light sources with illumination light supplied from the light source, and wherein said optical element is disposed at a light entrance side of said optical integrator.

Please ADD new claims 22-24 as follows:

-- 22. An apparatus according to Claim 18, wherein said illumination optical system includes an optical integrator for producing a secondary light source with light supplied from the light source.

23. An apparatus according to Claim 22, wherein said second changing means includes an optical element disposed at a light entrance side of said optical integrator.

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24. A projection exposure apparatus, comprising:

an illumination optical system for illuminating a reticle with illumination light;

a projection optical system for projecting a pattern of the reticle, as illuminated, onto a substrate;

measuring means for measuring telecentricity of said projection optical system with respect to different image heights;

changing means for changing an incidence angle of the illumination light corresponding to each of the different image heights, to adjust the telecentricity with respect to a respective image height; and

adjusting means for adjusting an illuminance distribution on a surface to be illuminated, in accordance with a change made by said changing means. --

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REMARKS

Applicant requests favorable consideration and allowance of the subject application in view of the preceding amendments and the following remarks.

Claims 16-19 and 22-24 are presented for consideration. Claims 16, 18 and 24 are independent. Claims 16 and 18 have been amended to clarify features of the subject invention, while claims 22-24 have been added to recite additional features of the subject invention. Claims 20 and 21 have been canceled without prejudice or disclaimer. Support